On June 19, 2000, a flow investigation was performed at the Southwestern Electric Power Company (SWEPCO) Pirkey Power Plant, permit 02496.000 in Harrison County. Specifically, upstream tributaries to outfalls 004-006 and Hatley Creek were investigated for flow status, persistent pools, general conditions, etc. Tributary and outfall locations at the plant are different from the generalized map sent to the region (which was probably taken from the permit). The diagram in Figure 1, page 1, attempts to more accurately represent actual conditions (see comments for outfall 004, below). Stream conditions on 06/19 are thought to represent baseline conditions. Rainfall for June was recorded on 06/09/02 (0.89") and 06/16/02 (0.07"). Flows, when possible, were taken as well as photographs of the tributaries. Photographs of Hatley Creek upstream of the SWEPCO facility are included for perspective. Findings are listed below with a diagram and photographs following. A copy of the facility map is attached following the figures.

Tributary above Outfall 005 and 006: This tributary is shown in Figures 2 and 3. Due to the shallow nature of the stream, flow was measured by clearing sediment and making a small straight channel. Flow was measured at 0.008 cfs. The tributary had no evidence of pools nor deep depressions suitable for aquatic life other than macroinvertebrates.

Tributary above Outfall 006: A flow status was requested above outfall 006, which is the outfall for the ash pond (Figures 1 and 4). If, in the past, a tributary existed in this area, it has now been inundated by the ash pond. There did not appear to be a tributary feeding into the pond, therefore, no flow was noted above outfall 006.

Tributary above Outfall 005: The tributary above outfall 005 is a narrow (0.4-0.5 m wide), shallow (<3 cm deep) stream which appears to originate from a seep in what is now the limestone unloading area (Figures 1, 5, and 6). Flow was estimated at 0.001-0.01 cfs. There are no pools or depressions in the stream bed. Immediately upstream of the outfall structure, the stream flows into a small man-made basin before leaving through outfall 005. This basin serves as the limestone runoff pond. The basin contains shallow standing water and is inundated with cat tails and other aquatic and semi-aquatic vegetation. The basin does not appear to offer appropriate fish habitat.

Tributary above Outfall 004: Unlike the map submitted to the region, outfall 004 does not join the same unnamed tributary on which outfalls 005 and 006 are located. Rather, outfall 004 is the sole outfall on a tributary which originates south of the tributary on which 005 and 006 are located (see Figure 1). The tributary on which 004 discharges is a very shallow (< 3 cm deep), narrow (0.5-0.7 m wide) stream with very little flow. Flow was estimated at 0.001-0.01 cfs. No evidence of pools, trenched areas, or depressions to serve as pools were noted in the stream bed. Figures 7 and 8 show the unnamed tributary above outfall 004.

Hatley Creek: The stream above the outfalls had a measured flow of 0.40 cfs. An additional flow, upstream of the SWEPCO property at I-20, was measured at 0.74 cfs. Hatley Creek had several large pools suitable for fish (Figures 10-12). Figures 13 and 14 were taken on Hatley Creek at I-20 on 06/25/02 and are included as supplementary information.

In summary, the tributaries above the outfalls showed no evidence to suggest that persistent pools would exist during dry conditions. The tributaries are not of sufficient depth nor width to provide persistent aquatic habitat. Hatley Creek, in contrast, has several pools that would provide stable aquatic habitat during dry conditions. If Hatley Creek was to become intermittent, it would provide persistent pools.

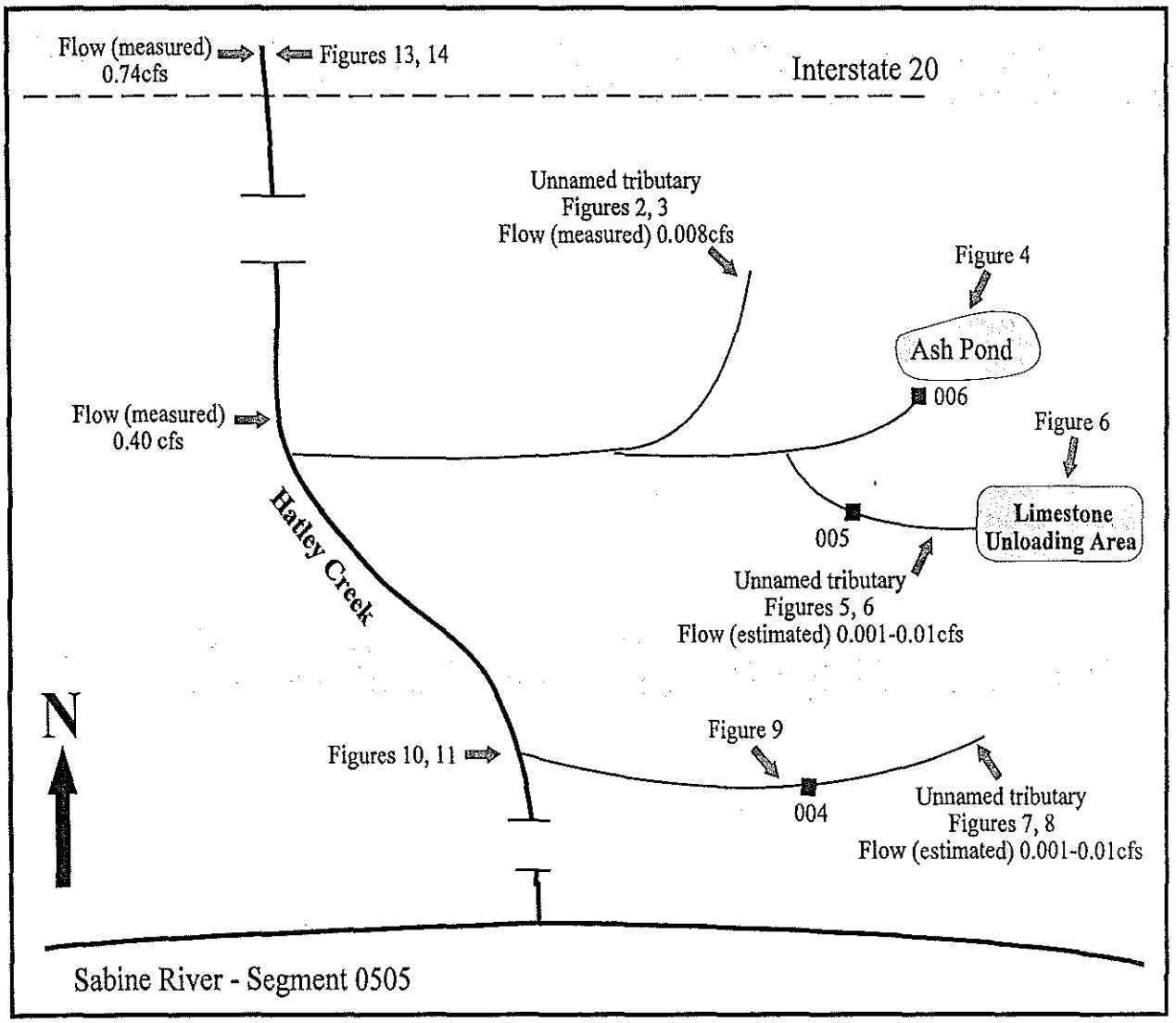


Figure 1. Generalized layout of outfalls 004-006 in relation to one another and Hatley Creek.
Note: Layout **NOT DRAWN TO SCALE**

Figure 2. Unnamed tributary approximately 35m above confluence with outfalls 005 and 006. See Figure 1 for diagram of tributary location. Measured flow of tributary = 0.008 cfs. No pooling was noted.

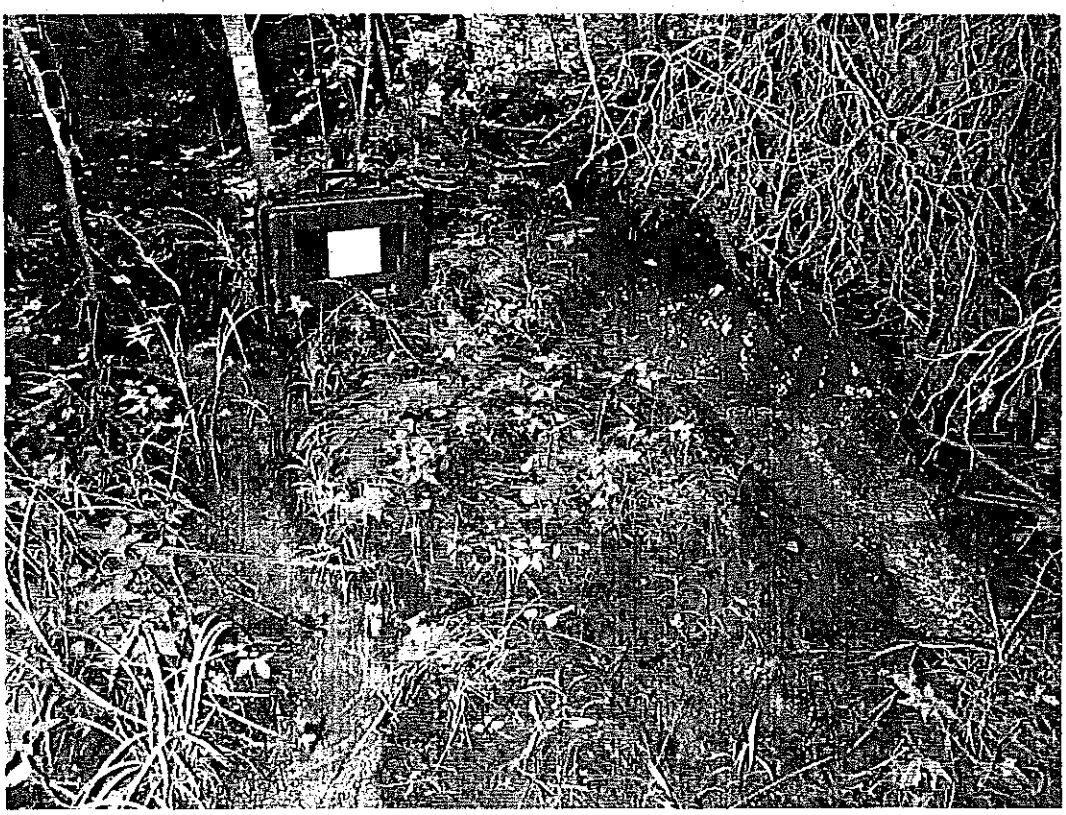


Figure 3. Second picture of unnamed tributary approximately 42m above confluence with outfalls 005 and 006. See Figure 1 for diagram of tributary location. Measured flow of tributary = 0.008 cfs. No pooling was noted.

Figure 4. Ash Pond. Location of ash pond is directly above outfall 006. See Figure 1 for diagram of ash pond location.

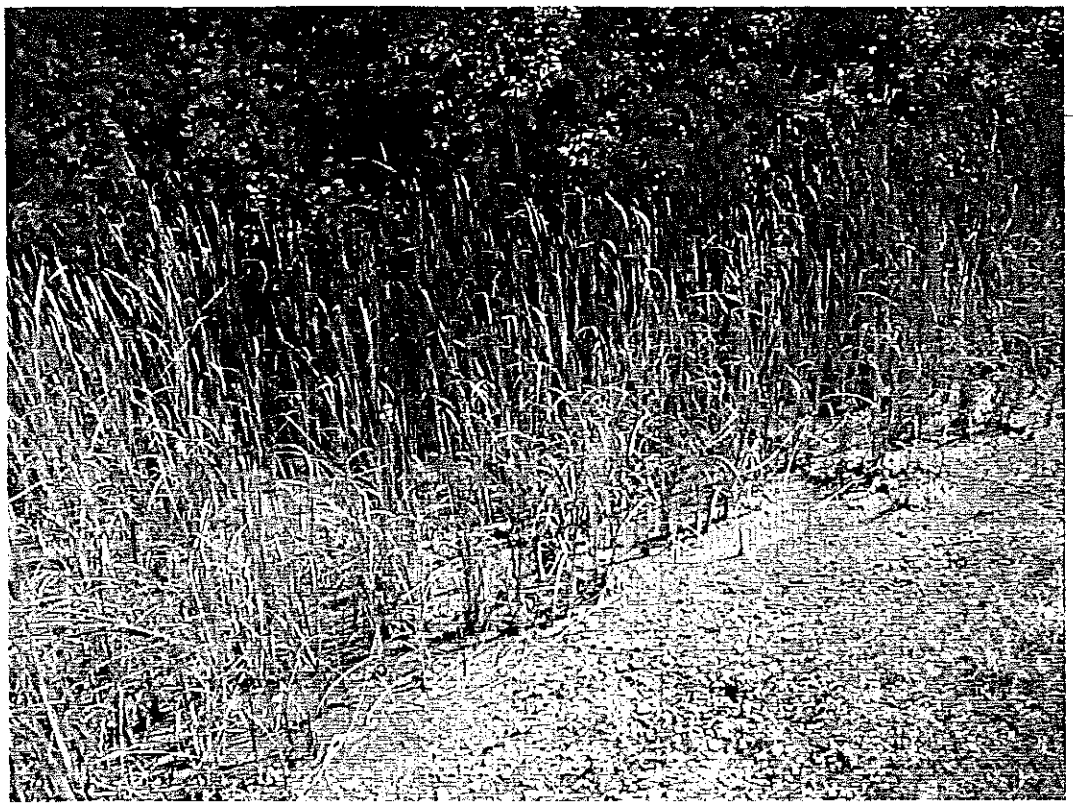


Figure 5. Unnamed tributary approximately 40m upstream of outfall 005. See Figure 1 for diagram of tributary location. No pools present.

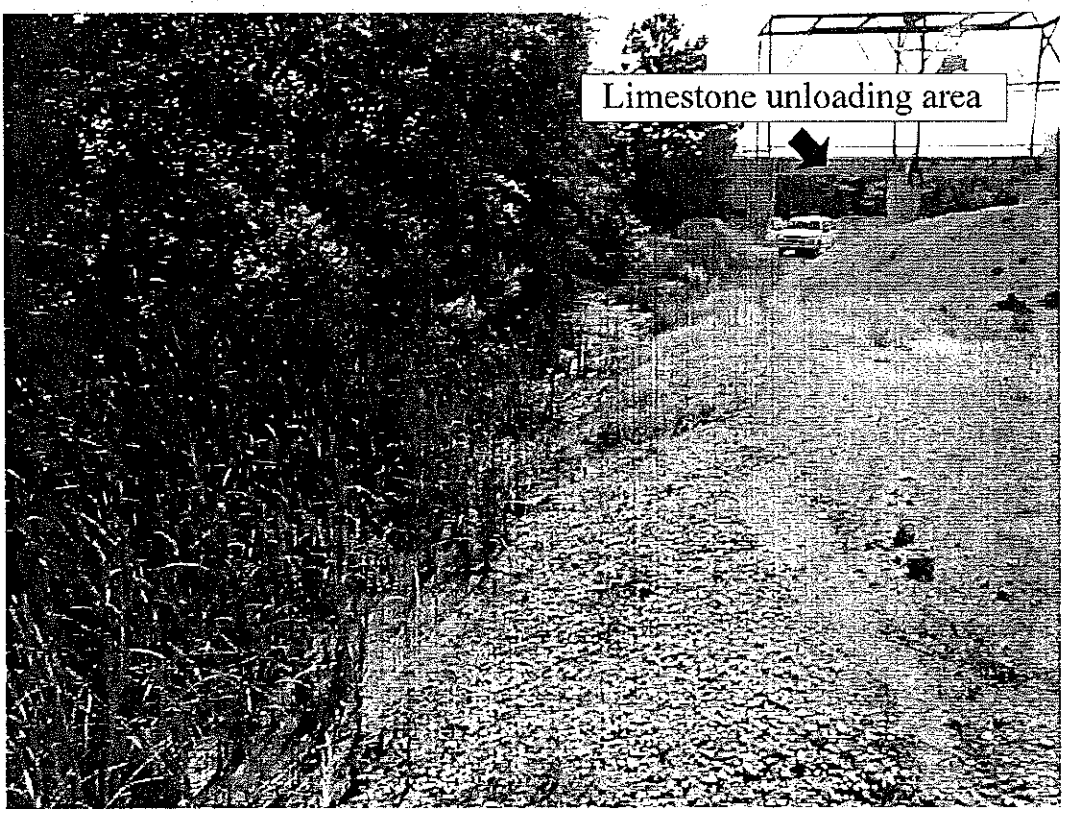


Figure 6. Unnamed tributary approximately 70m upstream of outfall 005. Tributary begins in the limestone unloading area. See Figure 1 for diagram of tributary location. No pools present.

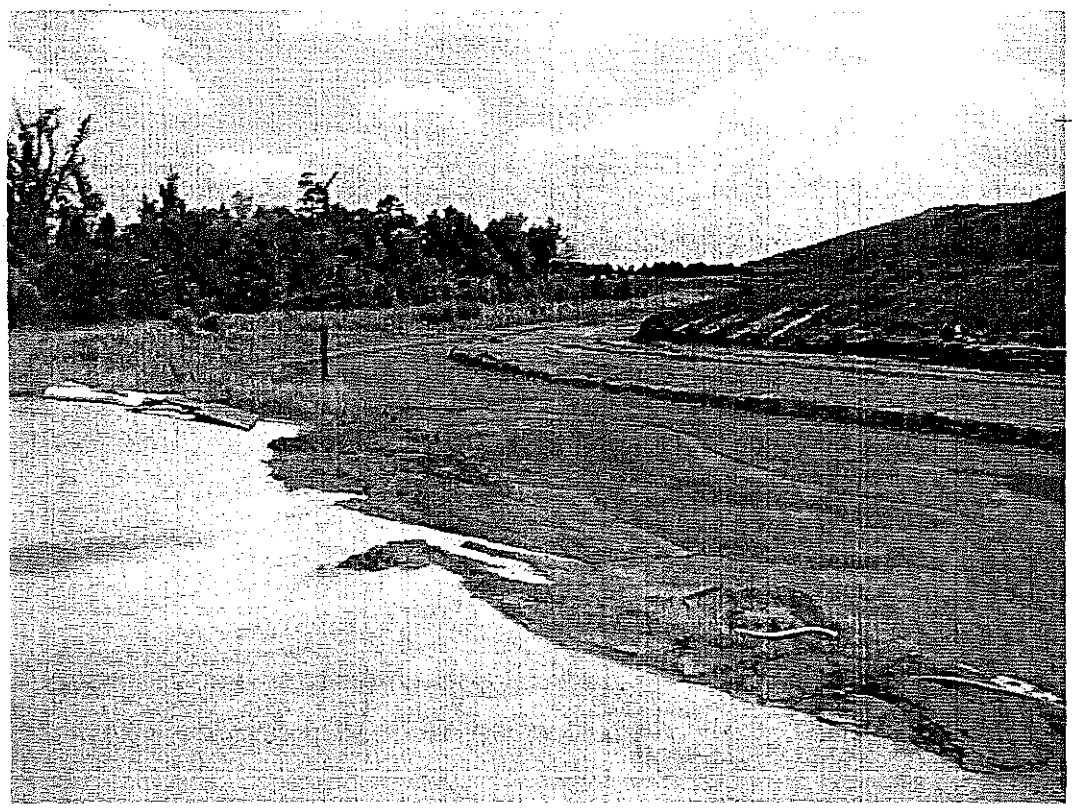


Figure 7. Unnamed tributary approximately 30 m upstream of outfall 004. No pools present. See Figure 1 for diagram of tributary location.

Figure 8. Unnamed tributary approximately 35 m upstream of outfall 004. No pools present. See Figure 1 for diagram of tributary location.

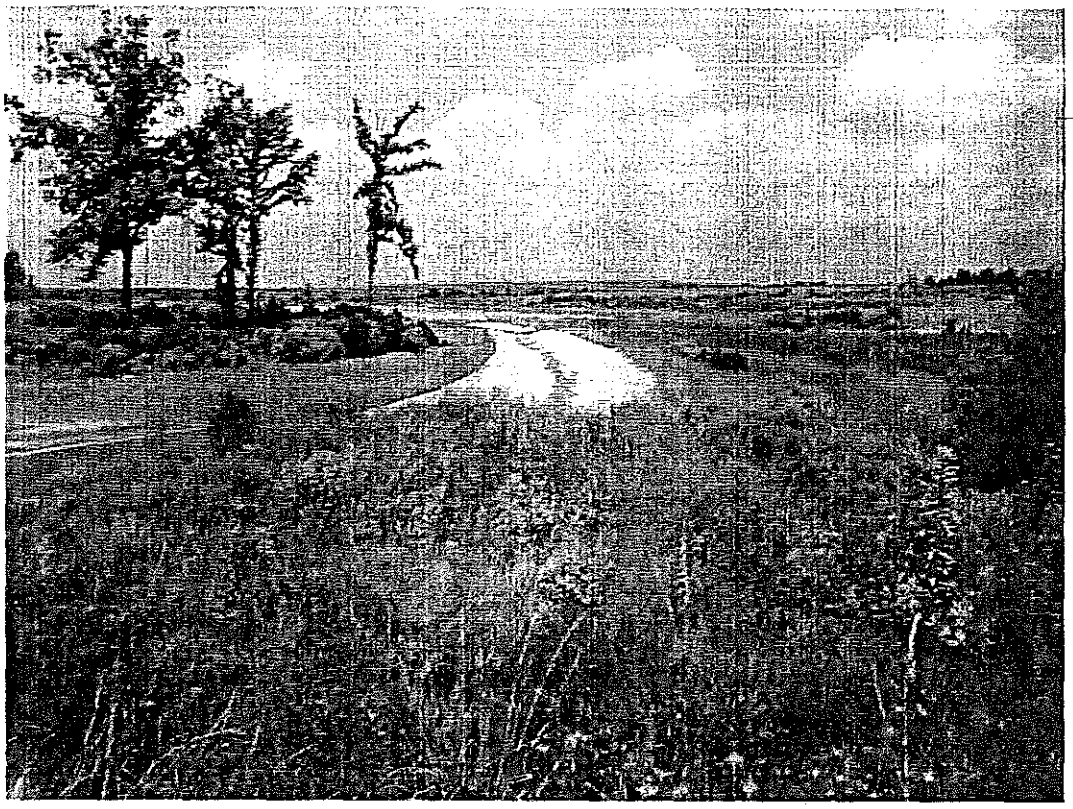


Figure 9. Unnamed tributary immediately below outfall 004, several hundred meters above confluence with Hatley Creek.

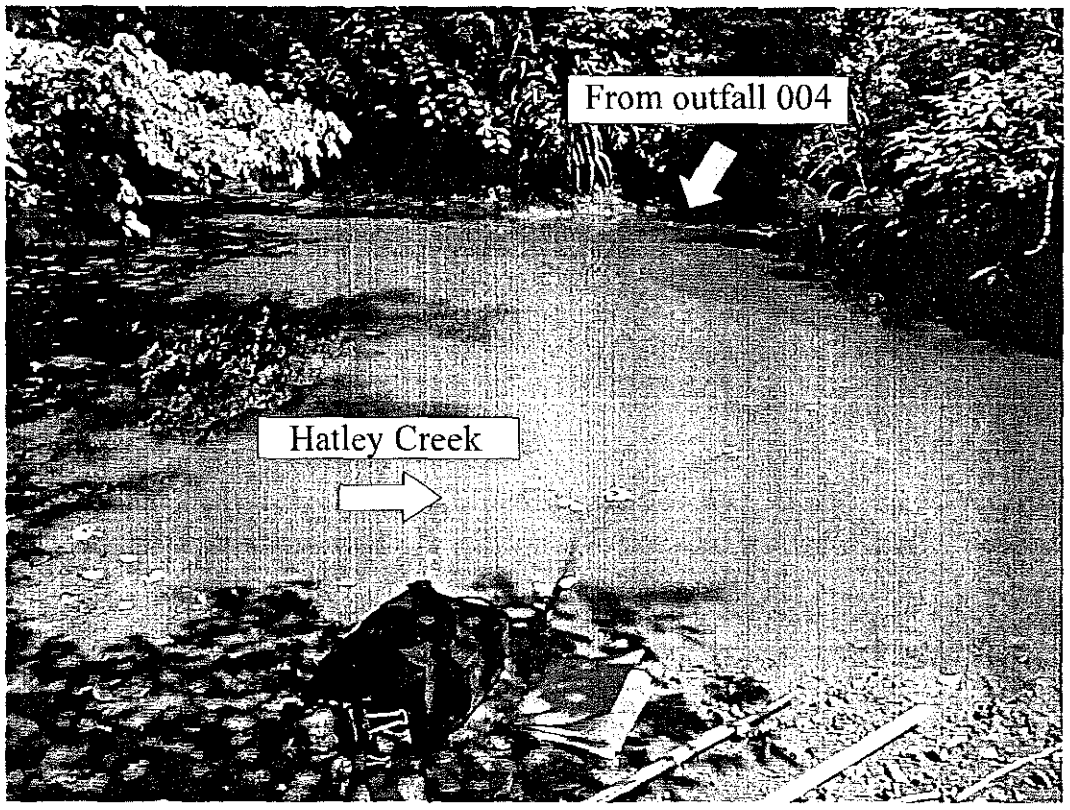


Figure 10. Confluence of outfall 004 with Hatley Creek.

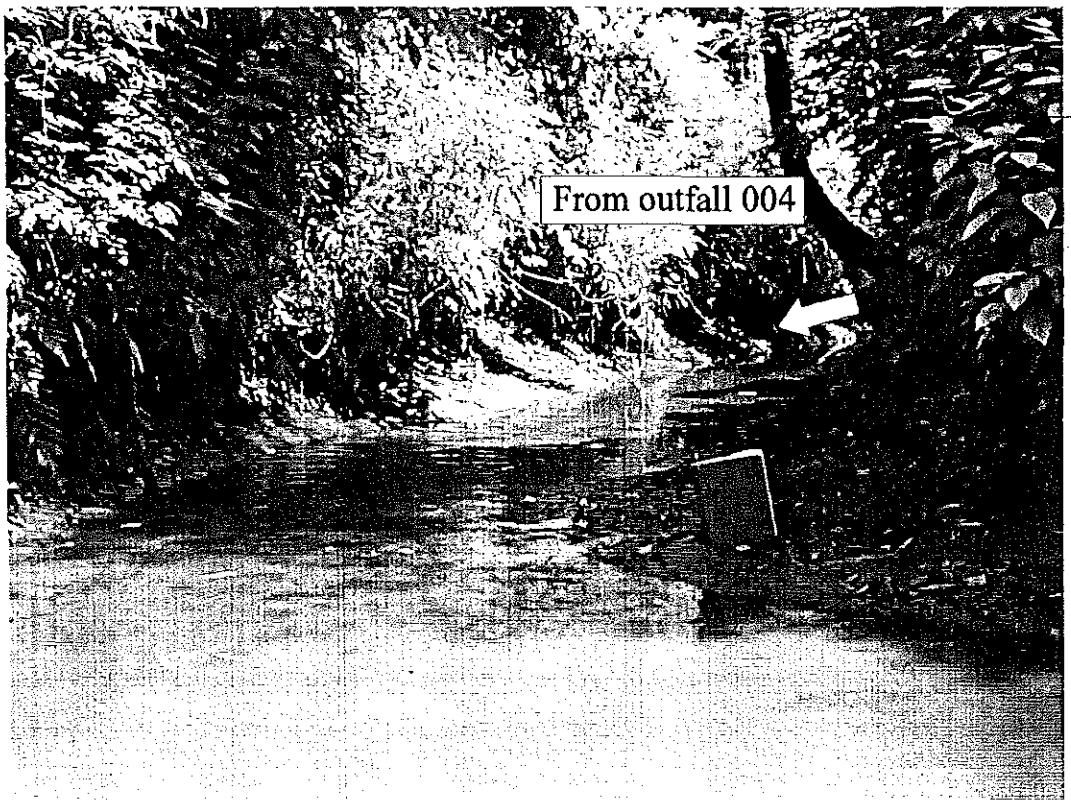


Figure 11. Confluence of outfall 004 with Hatley Creek.

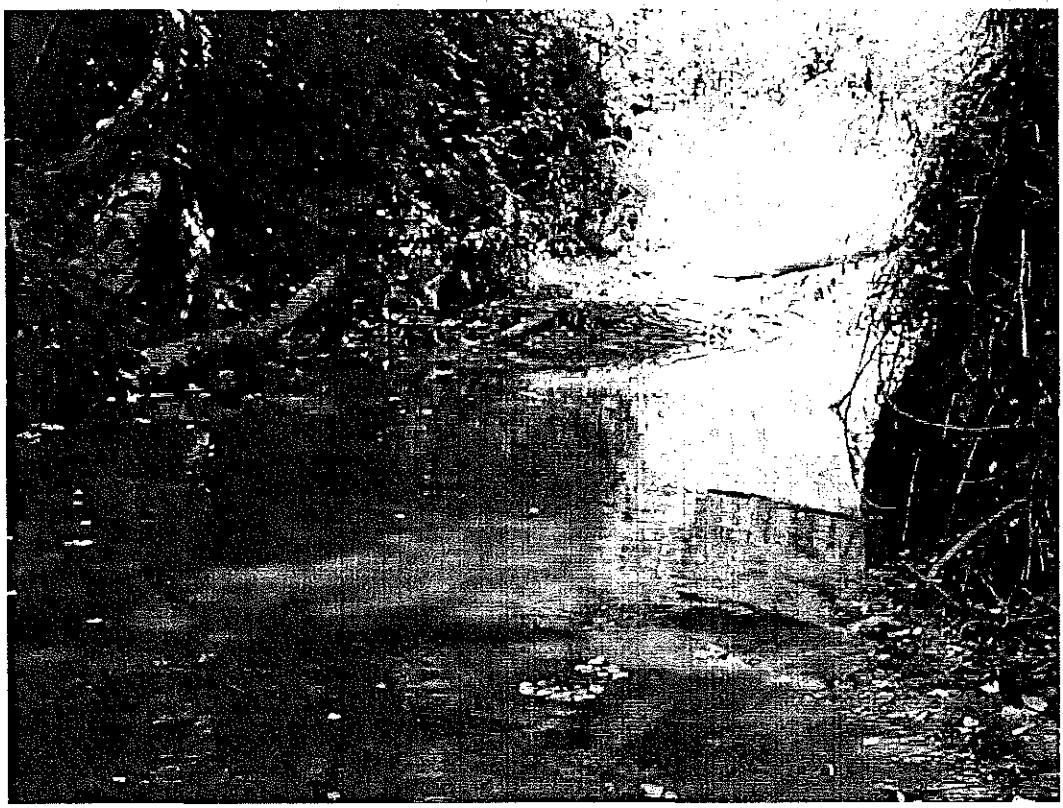
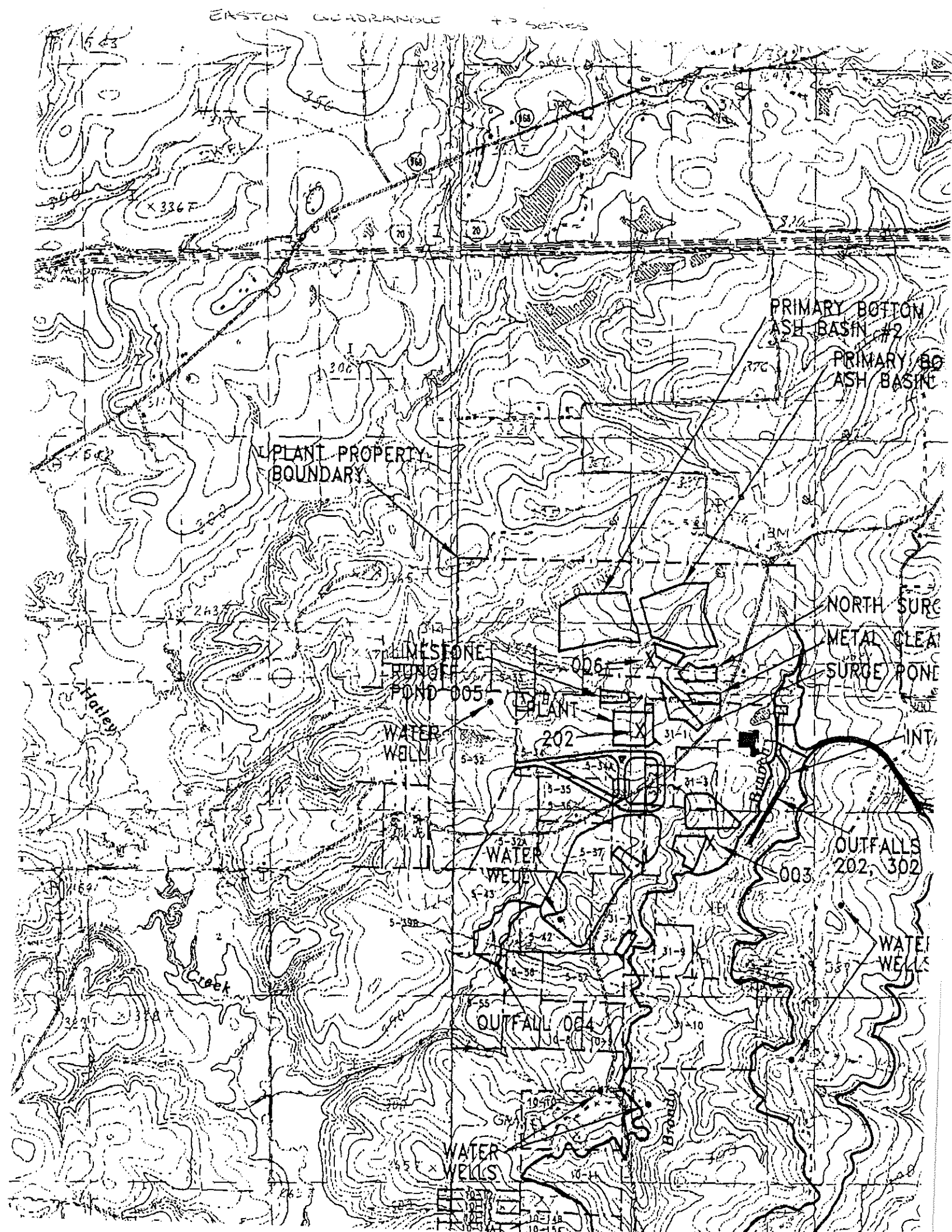


Figure 12. Pool habitat in Hatley Creek upstream outfalls. Pool dimensions were 11m (w) x 14m (l) x 1.1m (d). This type of habitat was common in Hatley Creek.

Figure 13. Hatley Creek upstream of I-20. See Figure 1 for diagram of location. *Picture not taken on SWEPCO property but included to show characteristics of Hatley Creek upstream of SWEPCO.*

Figure 14. Hatley Creek upstream of I-20. See Figure 1 for diagram of location. *Picture not taken on SWEPCO property but included to show characteristics of Hatley Creek upstream of SWEPCO.*


ERSTON QUADRANGLE
PRIMARY BOTTOM ASH BASIN #2
PRIMARY BO
ASH BASIN
PLANT PROPERTY BOUNDARY
NORTH SURG
METAL CLEA
SURGE POND
LIMESTONE RUNOFF POND 005
006
PLANT 202
WATER WELL
WATER WELL
OUTFALLS 202, 302
003
OUTFALL 004
WATER WELLS
Hatley
Creek
Branch